

February 2015

David W. Reynolds

Present Position: Title: Senior Research Meteorologist, Cooperative Institute for Research in the Environmental Sciences, University of Colorado. Stationed in Monterey and Seattle, WA. January 2012- Present (49% appointment).

Consultant: Perform consulting duties with clients in the area of quantitative precipitation forecasting, application and evaluation of numerical forecast models, development and adaptation of gridded forecasts, and evaluation of radar and rain gauges for quantitative precipitation estimation. 25%

Education:

College

University of California, San Diego; La Jolla, CA	9/67 - 12/67
University of California, Davis; Davis, CA (Degree: B.S. in Atmospheric Science)	1/68 - 6/71
Colorado State University; Fort Collins, CO (Degree: M.S. in Atmospheric Science)	1/72 - 6/73
Colorado State University; Fort Collins, CO (Ph.D - No degree)	9/82 - 6/83

Employment:

Senior Engineering Aid, Department of Agricultural Engineering, University of California at Davis, 1968 - 1971.

Senior Research Assistant, Department of Atmospheric Science, Colorado State University, 1973 - 1975.

Research Associate, Department of Atmospheric Science, Colorado State University, 1975 - 1979.

Research Assistant Professor, Department of Atmospheric Science, Colorado State University, 1979 - 1980.

Chief Meteorologist, GS-12, Alaska Avalanche Warning Center, Fire Weather Forecast Center, Alaska Railroad, U.S. Department of Transportation, Anchorage, Alaska, 1980 - 1981.

Meteorologist, GS-13, Team Leader, Interactive Team of PROFS, NOAA/ERL, Boulder, CO 1981 - 1982.

Head, Sierra Nevada Section, Division of Atmospheric Resources Research, Code D-1210, USBR, Dept. of Interior, Denver, CO. Stationed in Auburn, CA GM-1340-14, 1982 - 1988.

Program Manager, Sierra Nevada Project, Water Augmentation Group, D-3720, Div. of Research and Laboratory Services, USBR, Dept. of Interior, Denver, CO. Duty station in Sacramento, CA. GS-1340-14, 1988-1994.

Science Operations Officer, National Weather Service, 21 Grace Hopper Ave. Stop 5 Monterey, CA 93940, 1994- 1998. GS-1340-14

Chief, Forecast Operations Branch, National Weather Service Hydrometeorological Prediction Center now Weather Prediction Center, Camp Springs, MD 20746-4304 GS-1340-15, 1998 – 2002.

Meteorologist in Charge, National Weather Service Forecast Office, San Francisco Bay Area. 21 Grace Hopper Ave. Stop 5, Monterey, CA 93943. 2002 – Retired December 2011.

Membership:

Member of the American Meteorological Society since 1971.

Awards:

NOAA Administrator Award – 1997

Department of Commerce Gold Medal -- the Department's highest honorary award – while Chief of Operations at Hydrometeorological Prediction Center for excellent rainfall forecasts associated with Hurricane Floyd – 2000

NOAA Bronze Medal for contributions in the restructuring of the National Weather Service's quantitative precipitation forecasting process – 2001

NWS Regional Cline Award – Exceptional Management and Leadership as Chief of Operations of Hydrometeorological Prediction Center – 2002

NOAA Bronze Medal as Meteorologist in Charge of San Francisco Bay Area Forecast Office for outstanding forecast during major flooding of New Years 2005 – 2006

AMS Editor of the Year Award *Journal of Climate and Applied Meteorology* – 2009

NOAA Bronze Medal Award for innovative contributions to the development of the Coastal Atmospheric River Monitoring and Early Warning System – 2010

Fellow American Meteorological Society – 2010

Recipient of Annual Award of the California Extreme Precipitation Symposium – 2012

Committees:

Past Chairman AMS Committee and Planned and Inadvertent Weather Modification, Past Member AMS Committee on Mountain Meteorology, Past Member AMS Committee on Mesoscale Processes. Served as Member USWRP Working Groups on both Warm and Cool Season Quantitative Precipitation Forecasting. Served on AMS Committee assessing the need to certify Weather Forecasters. Served on several NWS National teams including the restructuring of the NWS QPF

forecast process and its implementation. NWS Science and Technology Infusion Team (STIP) on Hydrology. NWS STIP Upper Air Observing Systems. NOAA Hydrometeorological Testbed Advisory Panel. Co- chair NOAA Western Region Hazard Resilient Coastal Communities Working Group. Chair- NWS Western Region Service Evolution Management Team. Member NWS Western Region Climate Change Technical Advisory Committee.

Publications:

Over 50 scientific publications and reports. Over 30 in referred literature.

Journal of Climate and Applied Meteorology

Life Sciences and Space Research

University of California Reports

Colorado State University Technical Reports

Monthly Weather Review

Journal Atmospheric Science

Bulletin of the American Meteorological Society

Journal of Weather Modification

NWS Western Region Technical Attachments

Natural Hazards

Journal of Hydrometeorology

Over 100 abstracts/presentations authored or co-authored at national or international scientific meetings.

SELECTED SCIENTIFIC PUBLICATIONS BY DAVID W. REYNOLDS

Coulson, K.L. and D.W. Reynolds: 1971: The Spectral Reflectance of Natural Surfaces. *Journal of Applied Meteorology*, **10**, pp. 1285–1295.

Reynolds, D. W., Thomas H. Vonder Haar, and Stephen K. Cox, 1973: The Effect of Solar Radiation Absorption in the Tropical Troposphere. *Journal of Applied Meteorology*, **14**, pp. 433–444.

Reynolds, D.W., T.H. Vonder Haar, L.O. Grant, 1978: Meteorological Satellites in Support of Weather Modification. *Bull. Amer. Meteor. Soc.*, **59**, 269-281.

Reynolds, D.W. and E. Smith, 1980: Detailed Analysis of Composited Digital Radar and Satellite Data, *Bull. Amer. Meteor. Soc.*, **60**, 1024-1037.

Platt, C.M.R., D.W. Reynolds, and N.L. Abshire, 1980: Albedo of Cirrus-Inferences from Ground-based Lidar and Geostationary Satellite Observations, *Mon. Wea. Rev.*, **108**, 195-204.

Reynolds, D.W., 1980: Observations of Damaging Hailstorms from Geosynchronous Satellite Digital Data. *Mon. Wea. Rev.*, **108**, 337-348.

Reynolds, D.W., 1983: Prototype Workstation for Mesoscale Forecasting. *Bull. Amer. Meteor. Soc.*, **64**, 264-273.

Reynolds, D.W. and A.P. Kuciauskas, 1987: Remote and in-situ observations of Sierra Nevada winter mountain clouds: Relationships between mesoscale structure, precipitation and liquid water. *Jour. Clim. Appl. Meteor.*, **27**, 140-156.

Reynolds, D.W., 1988: A report on winter snowpack augmentation. *Bull. Amer. Meteor. Soc.*, **69**, 1290-1300.

Deshler, T., D. W. Reynolds, and A. W. Huggins, 1990: Physical response of winter orographic clouds over the Sierra Nevada to airborne seeding using dry ice or silver iodide. *J. Appl. Meteor.*, **29**, 288-330.

Reynolds, D.W., 1996: The Effects of Mountain Lee Waves on the transport of Liquid Propane Generated Ice Crystals. *Jour. Appl. Meteor.*, **9**, 1435-1456.

Reynolds, D. W., 2003: Value Added Quantitative Precipitation Forecasts: How Valuable is the Forecaster. *Bull. Amer. Meteor. Soc.*, **84**, 876-878.

Jerome P. Charba, David W. Reynolds, Brett E. McDonald, and Gary M. Carter: 2003: Comparative Verification of Recent Quantitative Precipitation Forecasts in the National Weather Service: A Simple Approach for Scoring Forecast Accuracy. *Weather and Forecasting*, **18**, pp. 161–183.

F. Martin Ralph, Robert M. Rauber, Brian F. Jewett, David E. Kingsmill, Paul Pisano, Paul Pugner, Roy M. Rasmussen, David W. Reynolds, Thomas W. Schlatter, Ronald E. Stewart, Steve Tracton, and Jeff S. Waldstreicher 2005: Improving Short-Term (0–48 h) Cool-Season Quantitative Precipitation Forecasting: Recommendations from a USWRP Workshop. *Bull. Amer. Meteor. Soc.*, **86**, 1619-1632.

Dettinger, M. et al, 2011: Design and quantification of an extreme winter storm scenario for emergency preparedness and planning exercises in California. *Natural Hazards*.

Reynolds, D. W. D. C. Clark, F.W. Wilson, L. Cook, 2012: A Forecast-based Decision Support System that Improves Operations at San Francisco International Airport during Summer Stratus Season: A NextGen Prototype. Bull. Amer. Meteor. Soc., Oct. 2012, pp. 1504-1518.

Reynolds, D.W. T. Coleman, D. Gottas, and T. LeFebvre, 2014: An Automated Digital Forecast Information System to Improve Russian River Water Management. Submitted J. Weather and Forecasting.